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WHAT IS CLAIMED IS:

1. A composition comprising:
 - a monophasic aqueous phase comprising a system
5 comprising:
 - water,
 - a water-soluble or water-dispersible
polyionic dendritic polymer (a),
 - at least one ionic surfactant (b),
 - 10 - optionally a polycationic or polyanionic
polymer (c) other than the dendritic polymer,
and
 - optionally at least one amphoteric,
zwitterionic or neutral surfactant (d),
 - 15 - in which:
 - (a) is polycationic, (b) is anionic and
(c), if it is present, is polyanionic or
polycationic, or
 - (a) is polycationic, (b) is cationic and
20 (c) is present and polyanionic, or
 - (a) is polyanionic, (b) is cationic and
(c), if it is present, is polyanionic or
polycationic, or
 - (a) is polyanionic, (b) is anionic and
25 (c) is present and polycationic,
 - the monophasic aqueous phase becomes two-phase
or remains monophasic on diluting with water,
and
 - optionally solid or liquid particles of water-
30 insoluble organic or inorganic compounds (e).
2. The composition as claimed in the preceding claim,
characterized in that (a), (b), (c), if it is
present, and (d) if it is present, and their
35 amounts are such that the monophasic aqueous phase
becomes two-phase on diluting with water.

3. The composition as claimed in the either of the preceding claims, characterized in that:
 - the monophasic aqueous phase becomes two-phase on diluting with water, and
 - 5 - (a) or (c) precipitates when the aqueous phase becomes two-phase on diluting with water.
4. The composition as claimed in claim, characterized in that the system comprises (c) and in that
 - 10 - (a) is polycationic, (b) is anionic and (c) is polycationic, or
 - (a) is polyanionic, (b) is cationic and (c) is polyanionic.
- 15 5. The composition as claimed in one of the preceding claims, characterized in that it is an aqueous cosmetic composition for the hair and/or the skin intended to be rinsed off.
- 20 6. The composition as claimed in the preceding claim, characterized in that it is a shampoo, a conditioner or a shower gel.
- 25 7. The composition as claimed in one of claims 1 to 4, characterized in that it is a conditioner not intended to be rinsed off.
- 30 8. The composition as claimed in one of claims 1 to 4, characterized in that it is a composition for cleaning and/or treating hard surfaces.
- 35 9. A process for the treatment of a surface comprising the following stages:
 - a) application of a composition as claimed in one of claims 1 to 8, and
 - b) optionally rinsing.
10. The process as claimed in the preceding claim, characterized in that at least one of the

compounds chosen from (a), (b), (c), if it is present, and (e), if it is present, is deposited at the surface.

- 5 11. The process as claimed in the preceding claim,
characterized in that the surface is a hair and/or
skin surface.
- 10 12. The process as claimed in the preceding claim,
characterized in that the surface is a hard
surface.
- 15 13. The use of the composition as claimed in one of
claims 1 to 7 or of the process as claimed in one
of claims 9 to 11 in the conditioning, repair or
protection of the hair and/or in the dyeing of the
hair.